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# ‘Forest-wise’ parks in Mozambique

The potential for sustainable forest  
processing parks in Mozambique with  
Chinese collaboration

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## Acronyms and abbreviations

AQUA	Agency for Environmental Quality Control
AMOMA	Mozambican Association of Timber Operators
CAF	Chinese Academy of Forestry
CAFGP	China-Africa Forest Governance Platform
CEPAGRI	Agricultural promotion Centre
DINAF	National Directorate of Agriculture and Forests
FNDS	National Development Fund
GDP	gross domestic product
IIED	International Institute for Environment and Development
MITADER	Ministry Land, Agriculture Environment and Rural Development
WWF	World Wide Fund for Nature

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# 1. Introduction

## 1.1. Research background

After decades of growth in China-Mozambique economic relations, China is now the destination for approximately 93 per cent of all Mozambique's timber exports – but this has coincided with an alarming loss of forest cover, raising concerns over the impact of this trade on Mozambique's forest and rural development (EIA, 2014). Research into the behaviour of Chinese operators and their Mozambican counterparts indicates some willingness to improve under the right conditions (Wertz-Kanounnikoff et al., 2013). How might Chinese investment in the Mozambique timber trade foster better stewardship of forest resources in Mozambique and provide more benefits to Mozambican citizens? Several options have been researched and discussed within the China-Africa Forest Governance project – a multi-country project that seeks to improve forest governance, by promoting sustainable and pro-poor Chinese trade and investment in Africa's forests (see Macqueen, 2018).

Among the more promising options to sustain forests and improve livelihoods is for China and Mozambique to invest jointly in greater value-added processing within Mozambique. This could help address many of the key problems faced by the forest sector in Mozambique by:

- Increasing timber use efficiency (reducing demand on the forest)
- Improving the ease of law enforcement (through industrial clustering)
- Motivating sustainable supply management (to sustain inputs that repay investment loans), and
- Improving the contribution of the timber trade to local livelihoods and employment (through expanding processing industries).

China has world-leading experience in developing highly efficient clusters of timber processing industries within industrial parks. Might China be able to support Mozambique in developing a sustainable forest production processing park? China's new Going Global investment strategy is certainly aligned with such a possibility (Sun et al., 2014) and the idea was viewed favourably in discussions at the 4th international learning event of the China-Africa Forest Governance Platform (CAFGP) (Mayers et al., 2017)

In March 2018, under the China-Africa Forest Governance project, the Chinese Academy of Forestry (CAF) and the International Institute of Environmental Development (IIED) co-organised a visit by Mozambican stakeholders to two sustainable forest product processing parks, also referred to as 'forest-wise' parks, in Nankang and Zhenjiang, China. The visit aimed to cultivate support and an action plan for developing one or more well-regulated and sustainably managed industrial timber processing parks in Mozambique. During the visit, representatives from the government and private sector from Mozambique and China engaged in in-depth discussions on key barriers and opportunities to collaboratively develop one or more forest-wise parks in Mozambique.

This report summarises preparatory desk research conducted in preparation for the March 2018 visit and captures some reflections from Mozambique stakeholders, including those who participated in the visit. The report can be viewed as an initial exploration of issues;

there were not sufficient time or resources to provide fully costed options or business plans for potential forest-wise parks in Mozambique.

The work can also be seen as preparation for the June 2018 signing of a memorandum of understanding (MoU) on forests between the Mozambique government, represented by the Ministry Land, Agriculture, Environment and Rural Development (MITADER) and the Chinese government, represented by the National Forestry and Grassland Administration. The MoU sets a strong foundation for further co-operation between two countries in the forest sector, including co-operation for developing forest-wise parks in Mozambique.

## 1.2. Research questions

In order to make the most of the Mozambique-China exchange visit, IIED commissioned preparatory research and shared it with the visit participants beforehand. The research was based on the following questions, which are presented in this report:

- How can forest-wise parks be initiated in Mozambique?
  - Key stakeholders: Who are the key stakeholders that need to be involved? What are their roles and the prospects of those roles being played?
  - Key policies: What are the relevant policies and laws that would enable or constrain such parks in practice, including land purchases and leases? How can formal permissions be obtained and who will provide oversight of park development?
  - Key infrastructure needs: What potential is there to provide the essential infrastructure, transport and linkages to develop and manage forest resources?
  - Finance: What potential is there for financing forest-wise parks?
  - Business practices: What are the possible business practices, tenancy and management arrangements in such parks?
- Based on experiences in China, what are the potential opportunities and barriers in initiating and implementing forest-wise parks in Mozambique?
- What are the key lessons for Mozambique to ensure that social and environmental benefits are accrued from forest-wise parks?

The lead author consulted background literature and also interviewed key forest experts in Mozambique (see Annex 1). During the visit itself, the lead author discussed each of these issues with members of the delegation (see Annex 2).

## 1.3. Structure of the report

Key findings for the above research questions are summarised in three chapters:

- Chapter 2 provides an overview of Mozambique’s social and economic context for developing forest-wise parks.
- Chapter 3 discusses some of the key political and socioeconomic considerations in developing forest-wise parks in Mozambique, including the concept; relevant policies; potential location; key stakeholders; business practices; and financing.
- Based on these findings, Chapter 4 discusses some barriers and opportunities for the development of forest-wise parks in Mozambique.



## 2. The Mozambique context

### 2.1. Mozambique: population and economy

Mozambique covers an area of 784,755 square kilometres, extending from Tanzania in the north (10°30'S) to South Africa in the south (26°52'S). It also borders Malawi, Zambia, Zimbabwe, South Africa and Swaziland to the west and the Indian Ocean to the east.

The country's population was estimated at 28 million in 2016 (INE, 2016), of which 52 per cent are women and half are young people (50 per cent).<sup>1</sup> With an annual growth rate of approximately 2.4 per cent, its population is among the fastest growing in sub-Saharan Africa. The population is unevenly distributed, with the most heavily populated areas along the coast, urban zones and main corridors.

Despite its abundant natural resources, Mozambique's economy remains weak. In 2016 its gross domestic product (GDP) was US\$480 per capita compared to a regional average of about US\$2,274 (World Bank, 2016).

China is one of Mozambique's main economic partners, bringing billions of dollars to the country in investment. China-Mozambique co-operation can be traced back to the 1960s, with China providing diplomatic and limited military support to the Mozambique Liberation Front during the movement led by Eduardo Mondlane for liberation from Portuguese colonial power. Since then, Chinese trade and investment have helped the country's economic growth by financing projects in a timely manner (Horta, 2011; Taylor, 2006).

Despite the economic benefits brought to Mozambique by a long history of Chinese development co-operation – which have accelerated economic growth and foreign direct investment flow – there have also been negative perceptions of China's rapid and unsustainable exploitation of natural resources (such as timber, shellfish) and by limited benefits to the local labour workforce (Mabucunhane, 2015).

### 2.2. The forest sector in Mozambique

The forest sector in Mozambique is an important contributor to the economic growth of the country, contributing to 2 per cent of GDP in 2017 (Langa, 2017). The forest sector is also an important source of income for the rural population.

According to published data, there were 1,081 forest operators (198 concessions and 707 single licence operators) in 2015 (DNTF, 2015). In 2017 separate data suggested that Mozambique had 1,236 forestry operators, of which 211 operated concessions and 1,025 simple licences (WWF, 2016). Research in 2017 found that at least 29 per cent had Chinese capital (Muianga and Norfolk, 2017).

However, the forestry sector in Mozambique is facing problems that could jeopardise the long-term sustainability of the sector and destroy the native forest ecosystems and associated socioeconomic opportunities. For example, Mozambique recorded high deforestation between 2003 and 2013, with 0.79 per cent of the forest area being lost

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<sup>1</sup> In Mozambique young people are defined as those aged 12 to 24 years old (INE, 1999).

annually – corresponding to 267,029 hectares per year (MITADER, 2018). The main problems of the forestry sector, according to several different authors including government itself, are described below (eg Mackenzie, 2006; Mackenzie and Ribeiro, 2009; Ribeiro and Nhabanga, 2009; DINAF, 2016; CEAGRE and Winrock International, 2016).

- **Illegal activities.** These include: 1) illegal harvesting (exceeding licensed amounts; harvesting without a licence; or harvesting outside the licensed area); 2) violations of labour laws (eg illegal employment of foreign workers); and 3) illegal transit and purchase of timber.
- **Illegal export of wood mainly logs.** The timber sector in Mozambique was developed during the colonial period but collapsed during the long civil war. Since the end of the war the sector has been expanding but has been dominated by Chinese demand for logs. Mozambique had a selective log export ban for first class wood and, since 2016, has enacted a complete ban on log exports. However, large numbers of logs continue to be exported across leaky borders.
- **Shifting cultivation and commercial charcoal making.** Households in Mozambique practice shifting cultivation which has caused frequent forest fires. Many households still rely on charcoal, often produced using inefficient earth kilns that only achieve a conversion rate of wood to charcoal of between 11 and 26 per cent.
- **Poor management of forest.** The vast majority of firms operating in the forestry sector harvest timber from natural forests and do not replant. Less than five companies in Mozambique practice sustainable forest management, such as coppice management, reforestation, fire management, erosion control and thinning.
- **Weak law enforcement and corruption in the forest sector.** The government has financial and technical limitations to enforcing laws in the sector (Mackenzie, 2006; Ekman et al., 2013; EIA, 2013, 2014; FAEF, 2013; Huang and Sun, 2013; German and Wertz-Kanounnikoff, 2012).
- **Lack of capacity for value addition:** There is limited value-addition investment in Mozambique’s forest sector. Timber processing is highly inefficient – and the resulting products often have to be re-sawn in China to reach required quality standards (Savcor, 2005; Ogle and Nhantumbo, 2006; Macqueen and Falcao, 2017). Wood production for national and international markets between 2002 and 2013 are shown in Tables 1 and 2. Due to Mozambique’s limited value-addition capacity, most of the exports are logs or low value-added products. A limited number of main tree species are exported, including *Dalbergia melanoxylon* (pau-preto), *Swartzia madagascariensis* (pau-ferro), *Combretum imberbe* (mondzo), *Pterocarpus angolensis* (umbila), *Millettia stuhlmannii* (panga-panga or jambirre) and *Azelia quanzensis* (chanfuta).

'FOREST-WISE' PARKS IN MOZAMBIQUE: MARCH 2019

Table 1. Wood production for internal consumption between 2002 and 2016 (1,000m<sup>3</sup>)

Product	Year													
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Logs	146.929	202.279	103	143.587	128.353	124.867	112.584	167.955	175.871	178.210	54.296			
Sawn wood	29.2		32	36.424	50.511	96.401	114.244	192.271	211.518	233.316	226.5	396.512	83.644	379.679
Parquet*	2.9	6.9	4.0	3.263*	2.306*	1.025*	5.008*	3.014*	0.447*	4.202	0.015	2.56208	5.831	11.279
Plywood	0.1		-	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Veneers	0.0		-	0.0	27.593*	88.494*	195*	152*	0.134*	0.101	0.081	0.12867	0.083	0.014
Poles	3.6		-	0.0	N/a	N/a	5.082	4.688	4.064		0.0	0.0		0.698
Particle board	0.0		-	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Sleepers	N/a		N/a	1.074	1.174	2.134	4.043	2.762	2.253	4.429	1.062	2.28398	1.554	1.548

\*Values in m<sup>2</sup>. N/a = Not available. Source: DNFFB (2002–2005), DNTF (2006–2014), DINAF (2015–2017).

Table 2. Wood production for export between 2002 and 2016 (1,000 m<sup>3</sup>)

Product	Year													
	2003	2004	2005	2006*	2007*	2008	2009	2010	2011	2012	2013	2014	2015	2016
Logs		73.177	58.659	107.135	55.982	19.002	21.264	22.846	36.013	41.543	54.296	140.307	148.093	187.747
Sawn wood		7.899	11.417	30.459	30.930	84.085	92.914	176.572	175.982	218.842	226.5	363.925	272.858	334.003
Parquet		2.428	0.0	0.0	0.234	0.688*	0.511*	0.137*	0.109*	0.049	0.015	0.0169		1.332
Veneer			0.0	0.0	27.064	0.395*	0.129*	0.119*	0.102*	0.079	0.081	0.129	0.097	0.029
Plywood			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Poles			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Sleepers		1.334	0.836	0.996	1.118	1.350	0.682	1.041	1.657	1.998	1.062	3.327	1.891	0.847

\*Values in m<sup>2</sup>. N/a – Not available. Source: DNFFB (2002–2005), DNTF (2006–2014), DINAF (2015–2017).

### 2.3. Investment in value-added processing in Mozambique

The KPMG 2010 index on doing business reports on how private sector representatives evaluate the business environment. The index suggests that Mozambique has a weak business environment due to the shortage of skilled labour; a fragile business environment (risk of armed conflict in certain areas of the country, relatively high inflation levels and high interest rates); high incidence of corruption; weaknesses in the transport system; limited access to credit; high bureaucracy; and illegal imports. Entrepreneurs also cited frequent and un-coordinated government inspections as one of the key barriers for businesses. Those inspections can be misused by government officials for bribery (Government of Mozambique, 2013).

Manufacturing is underdeveloped in Mozambique, including value-added processing in the forest sector. The manufacturing sector is mainly comprised of low-tech micro companies, with few small and medium-sized firms. Large firms tend to be foreign companies and are generally more capital intensive. In addition to the general challenges to the private sector mentioned above, challenges to value-added processing businesses in Mozambique include unreliable electricity, a costly and bureaucratic business environment, and the high cost of complementary goods such as packaging (as they are often imported). Interest rates on loans are prohibitively high, and any financial products on offer are often inflexible. Micro, small and medium enterprises often quote lack of access to finance as a key barrier to their development (Deloitte and Touche, 2017).

But Mozambique also has several advantages for investment in value-added processing. These include good port infrastructure; good transport linkages to South Africa, Malawi, Zambia and the Democratic Republic of the Congo; a competitively priced supply of labour; and a wealth of natural resources. All these advantages are attracting more investment into manufacturing despite the many existing challenges. The average growth rate for the manufacturing sector was a respectable 5.1 per cent between 2013 and 2015. In 2016, it contributed to about 9 per cent of GDP and 0.8 per cent of employment (Deloitte and Touche, 2017).

## 3. Key issues for 'forest-wise' parks in Mozambique

### 3.1. The Concept

Industrial parks are concentrations of companies that can foster innovation, technological learning and company growth. They can provide a supportive institutional framework, modern services and physical and often social infrastructure – including an increasingly skilled workforce over time (UNIDO, 2017).

Industrial parks are premised on the widely held understanding that clustering industry together has certain advantages (Porter, 1998). For example, firms in a cluster can operate more productively in sourcing staff and inputs; accessing information, technology, and needed institutions; co-ordinating with related companies; and measuring and motivating improvement. Clusters promote both competition and co-operation. Rivals in a cluster compete intensely to win and retain customers, but also co-operate with related companies who can assist them in parts of the value chain. In short, clusters – in this case industrial parks – create competitive advantage.

A 'forest-wise' park can be defined as a well-regulated and sustainably managed industrial timber processing park. It would enable a community of manufacturing and service businesses to collaboratively seek enhanced environmental, social and economic performances through sharing processing technology as well as environmental, financial and human resources.

What is distinctive about a forest-wise park is this commitment to goals beyond pure economics, including environmental goals for the forest and socioeconomic goals for local livelihoods. The community of businesses within a forest-wise park can therefore:

- Share access to inputs, information, value-added processing know-how, skilled staff capacity and infrastructure
- Share commitment to, and realisation of, common goals so as to collectively implement environmental management practices and labour laws in line with international standards, and
- Generate collective economic benefits (through scale efficiencies) that are greater than the sum of the individual benefits each company would realise on its own (Saleman and Jordan, 2014; UNIDO, 2017).

A forest-wise park model is often supported by both private and public sector because of its potential to reduce costs, increase profit and be more easily monitored to ensure legality. In March 2018 IIED and CAF organised a visit to two forest-wise parks in China, based on two distinct models, to understand better how to initiate similar models in Mozambique. See Box 1 for a brief overview of those models.

## Box 1. Two forest-wise park models in China

### Nankang forest-wise park

*Main product:* Furniture

*Features of the forest-wise park model:* The companies involved in the park are geographically scattered around Nankang District, which covers 1,796 square kilometres. However, they work closely together and cover all the necessary services along the value chain for furniture production. The park is expected to process about 1 million cubic metres of wood planks in 2018 and is one of the biggest producers of furniture in China.

*Enabling conditions:* The forest-wise park concept is implemented in the Nankang District through enabling government policies and support (eg government acts as guarantors for loans; trains skilled technicians; and provides a comprehensive supply chain database) to attract private sector firms that can provide services along the furniture supply chain (eg furniture design, furniture manufacture, logistics, sales).

This model requires less up-front financing from government. When the district started to encourage the furniture supply chain back in 2003, the context was similar to the current situation in Mozambique, with a lot of micro and small enterprises (many conducting illegal business); but through gradually introducing various enabling policies, the park has grown significantly in the last 15 years.

### Xinminzhou forest-wise park

*Main product:* Processed wood planks

*Features of the forest-wise park model:* Unlike the Nankang model, this model brings a range of companies together geographically – in this case around a major timber import port. The whole park will cover three square kilometres when complete. It will include port logistics, value-added processing, business services and eco-tourism zones. The port aims to optimise the supply chain by cutting down logistic and financial costs for all companies in the park.

*Enabling conditions:* The park was initiated by Zhonglin (a state-owned company) and Jingkou District government in Zhenjiang city. The government has created a wealth of enabling conditions, including access to land and waterways that are strategically located for exports/imports; tax relief; low rental costs for land and hardware; co-ordination among all relevant government offices for the park’s businesses, in order to streamline government procedures; and investment to further improve infrastructure for the park (eg building tunnels and hotels).

In discussions with key experts in the government and the forest-related private sector in Mozambique – through processes such as the CAFGP – it was felt that the forest-wise park model could help to address many challenges in the Mozambican forest sector.

Interviews with key Mozambican forest experts (see Annex 1) and Chinese colleagues at the two Chinese forest-wise parks described in Box 1 suggest the following advantages of this model:

- By pooling public and private resources, the model could increase investment in value-addition capacity in Mozambique.

- By increasing investment in value-addition capacities, there would be a stronger incentive to ensure sustainable supplies of raw material to pay back those investments.
- By increasing investment, there would be opportunities to build business partnerships among leading forest companies who can share best practices in market access, efficient processing technology, sourcing from sustainable forest management and engagement with local communities.
- By developing partnerships committed to sustainability and located in the same place, a forest-wise park could be easier for government and civil society to monitor and report on timber legality and compliance with environmental regulations. Timber legality and full compliance with all environmental regulations could be a prerequisite for any company who wants to access the facilities and services provided by the park.

### 3.2. Key stakeholders needed to develop a forest-wise park

The March 2018 visit to China provided lessons on who might need to be involved in establishing forest-wise parks in Mozambique. The Chinese parks had been initiated by government both at central and at the municipality level and included active engagement with the private sector. Central government provided favourable policies (eg access to land, tax deduction) while the municipality provided technical support and financial support (eg guarantees for loans). The private sector engaged and provided feedback on the design of these incentives and support systems.

Learning from the experiences in China and reflecting on Mozambique’s economic and social context, the participants felt that the Mozambique government should also play a leading role in developing forest-wise parks, actively engaging with the private sector and non-governmental organisations NGOs. This would involve laying out a policy vision and incentives for creating such areas.

#### 3.2.1 Government institutions

Participants considered the government of Mozambique – at national, provincial and district levels – to be one of the key stakeholders in developing the forest-wise park model. More specifically, participants perceived the following government agencies to be needed as active stakeholders in the development of forest-wise parks:

- The Ministry of Land, Agriculture, Environment and Rural Development (MITADER) drafts and implement policies for forestry, land and rural development. MITADER could facilitate co-operation with other government agencies in developing land-use planning for the park. It could also set out operational mandates, developing transparent criteria to select, and thereby identify, leading companies for the park. MITADER could also promote investment into the park through preferential policies.
- Within MITADER, the National Development Fund (FNDS) and Fund Invest could support the necessary land acquisition, environmental impact assessments, financing proposals and infrastructure development plans

required by the park and could ultimately co-manage the park. In close collaboration with the Ministry of Commerce, FNDS could provide services to companies in the park including financial services, e-commerce, logistics, tax and customs support. These services and support could help reduce operational costs for the companies and encourage value-added processing at scale.

- The Ministry of Finance and Planning could provide the necessary financial incentives (eg tax relief) for the forest-wise park. Within the ministry, the National Directorate of Customs could facilitate the import of inputs and export of products from the park.
- The Ministry of Industry and Commerce could facilitate the approval of the park’s technical requirements.

### 3.2.2 Private sector institutions

In discussions with interviewees before the visit, and subsequently with participants of the March 2018 visit, it was pointed out that the Mozambican Association of Timber Operators (AMOMA) is the biggest association of private-owned companies in Mozambique’s forest sector. Most AMOMA members are small and medium-sized companies. AMOMA could help mobilise private sector inputs at the inception stage and private sector partnership in the park’s implementation. Only companies adopting legal and sustainable business models would be allowed to partner and join the park.

### 3.2.3 Non-government institutions

Participants in the March 2018 visit felt that international NGOs could be involved, to help develop codes of operator practice and to monitor developments independently. Key international NGOs that have a strong track record in Mozambique include the World Wide Fund for Nature (WWF), the International Union for the Conservation of Nature, the Wildlife Trade Monitoring Network and IIED. They also felt workers’ unions should be involved, as key stakeholders who could advise, collaborate on and monitor social and environmental issues related to employment within the park.

In China, NGO roles are limited in the industrial park, but this may be a function of the broader political situation within China. Mozambique has a much more active civil society and NGOs could play a role monitoring the implementation of the park and checking on illegal activities, including corruption.

## 3.3. Key policies for initiating and managing parks

Mozambican legal frameworks that would need consideration in order to develop a forest-wise park include policies, laws, regulations, ministerial diplomas and decrees and strategies. Discussions with interviewees and participants in the March 2018 visit indicated several legal instruments relevant to initiating and managing parks, outlined below.



### 3.3.1. Investment policy and law

Forest-wise park investment in Mozambique would be regulated by the 1993 Investment Law and Code of Fiscal Benefits. Under those laws, the standard tax regime includes individual income tax of up to 20 per cent; corporate income tax of 32 per cent; value-added tax of 17 per cent; customs duties of up to 20 per cent; dividends, interests and royalties of 20 per cent; and excise taxes of up to 75 per cent levied by the national government. Additional taxes might be levied by local governments where the park is located.

If the park is registered with the government’s investment promotion centre, it can access benefits including tax incentives (rate reductions depending on the investment level), exchange control benefits (the right to repatriate benefits) and exemptions from customs duties on imported equipment and transport (German and Wertz-Kanounnikoff, 2012; Ekman et al., 2013). Provided the strong emphasis on environmental and social goods were maintained, there is no reason why such exemptions should not be made.

### 3.3.2. Land policy and law

If land needs to be leased by the private sector partners involved in the park, transactions related to the land would be regulated by the 1997 Land Law and its regulations (regulation of land law is published in Ministerial Diploma No 29-A/2000 and taxes for land-use titles published in Decree 77/99, including the land-use title). This law states that “the land is owned by the State and cannot be sold or, in any way, alienated, sold, mortgaged or impounded”.

Private sector partners would have to lease land from the government. In China, government has made the land-leasing process easier and cheaper for the private sector as an incentive to encourage private sector investment. This was discussed and participants agreed that the Mozambique government ought to offer similar incentives.

### 3.3.3. Forestry policy and law

The companies who supply timber to a forest-wise park would also have to follow the forestry and wildlife policy and law. Some of the most important laws include:

- **National Forestry and Wildlife Policy 5/95:** This policy stipulates the conditions under which forest land can be used. There are also provisions within the policy to empower local communities to own and participate in the management of natural resources through community-based natural resources management initiatives. The Forestry and Wildlife Law (1999) establishes such a process through the creation of a management council (*conselho de gestão*) including members of the community, local government, private operators and other associations (Article 31, No 1).
- **Forestry and Wildlife Law 19/97 and 1999 Regulations:** The Forestry law regulates the basic actions for the protection, conservation and sustainable use of forest resources. This law is operationalised through Forestry and Wildlife Regulation 12/2012. The Mozambican government has been effecting institutional changes over the past three decades in the search for adequate policies and strategies for managing its forest resources. However, implementation of the legislation above is still limited for a number of reasons, including lack of political will, corruption, understaffing, insufficient training of technical staff and weak policing systems. A forest-wise park might incentivise better adherence to the terms of the forestry and wildlife law.

### 3.3.4. Business policies and laws

In Mozambique, for-profit companies can be registered as sole traders, limited liability companies, closely held limited liability companies, public companies, co-operative associations (or membership associations), private limited companies, joint ventures, branches of foreign companies, or public-private partnerships.

Mozambique participants in the visit suggested that any forest-wise park would most likely be registered as public-private partnerships, since the government would need to play a strong role in the initiation and implementation of the park (as discussed in Chapter 2).

### 3.3.5. Environmental policies, laws and regulations

The companies who supply timber to forest-wise parks, and value-added processing companies involved within the park, would of course have to follow the environmental policy, law and its regulations including:

- National Environmental Policy 5/95
- Law of the Environment 19/97
- Regulations on the Environmental Impact Assessment Process
- Regulations on the Environmental Audit Process, and
- Regulations on environmental inspections.

In contrast with the Forestry and Wildlife Law, these provisions are mainly geared towards the environmental impacts of industrial processes and not the management of forest resources – and so would be particularly relevant within the industrial park.

### 3.3.6. Labour law

The Mozambican government passed a labour regulation in 2016, strengthening the requirement for employers using foreign nationals to devise a skills transfer programme to train Mozambican nationals to eventually replace foreign workers. The law maintains quotas, limiting the number of foreign nationals a business can employ in relation to the number of Mozambican employees. This is an important element of the forest-wise park concept – as the intention is that value-added processing will not only increase the sustainability and efficiency of forest resource use, but also improve the employment and income benefits for Mozambican nationals.

The labour law provides that workers, with limited exceptions, may form and join independent trade unions, conduct legal strikes and bargain collectively. The law requires government approval to establish a union.

Participants in the March 2018 visit felt that despite the clear existing regulatory framework discussed above, corruption and policy environment volatility were a real risk and could prevent private sector investment in the parks. A major trust-building exercise would be needed, with strong consistent political will from the government’s side.

## 3.4. Key infrastructure and potential locations for a forest-wise park

### 3.4.1. Accessibility – the need for infrastructure and transport

The forest-wise parks visited in China were both located near ports. They were also all served by excellent road infrastructure to allow cheap access to inputs and easy distribution to markets. The participants of the March 2018 visit identified four places in Mozambique that could offer the best infrastructure services to potential industrial parks:

- The Inchope region in Manica Province
- Beira Port in Sofala Province
- Quelimane Port in Zambezia Province, and
- Nacala Port in Nampula Province.

Each of these places have relatively good roads and are central points in the national infrastructure, connecting with other provinces in the country. They also have reliable access to infrastructure such as electricity and water.

### 3.4.2. Location of raw materials

One particular insight from the March 2018 visit came from the Nankang forest-wise park in China. It demonstrated that if there are good policies, infrastructure and advanced value chains in place, the proximity to forest area, while preferable, is not essential – as long as there are effective ways to transport the raw materials to the park (eg by sea, road or rail).

In terms of access to natural forest resources in Mozambique, the majority of Mozambique’s forests are located in the northern provinces of Niassa, Tete, Cabo Delgado and Zambezia and the southern province of Gaza.

In addition to timber harvesting from natural forests, the plantation forestry sector is rapidly expanding in Mozambique. There are a number of large new investments in eucalyptus and pine plantations for pulp and paper which are gradually maturing. These offer a reliable future supply of timber if well managed. Since the mid-2000s, there has been increased interest in large-scale investments in silvicultural plantations by foreign investors (CEPAGRI, 2010). Most of the current investments are located in Niassa and Nampula provinces, but certain investors are also targeting Zambezia, Sofala and Manica (Nuñez and Ribiero, 2006).

### 3.5. Financing options

#### 3.5.1. Possible options for financing

Participants in discussions mediated by the CAFGP identified four different models to finance industrial parks, depending on the site-specific conditions:

- **Government-led model.** This is the most common financing model in China and can be found in some countries in Africa (UNIDO, 2017; Saleman and Jordan, 2014). The park’s operation body is a public development company under a management committee funded by one or several city/county-level governments.
- **Industrial real estate model.** Real estate investors or other development enterprises lease land from the government. The company builds roads and other infrastructure that might be necessary to attract inward investment from businesses. It might also establish processing plants, warehouses, research and development centres with financing from bank loans. Then it leases the facilities in the park to processing companies or collaboratively manages those facilities through a joint venture.
- **Enterprise-led model.** In this model a company obtains a large amount of industrial land in order to build value-added processing capacity, mainly for its own business development. Although the premises of the lead company are dominated by that company, it may attract other businesses involved in the value chain to join the park through land rental and/or joint ventures. Funding usually comes from the lead enterprises or bank loans.

- **Public-private partnership.** This model is a combination of the three models above, using financial resources from the public and private sectors. It is this model that the Mozambican delegates felt was most likely to be useful in Mozambique as part of the forest-wise park concept. Models exclusively controlled by lead private sector firms (whether real estate investors or lead timber industries) were felt to present too many risks, in terms of willingness to share economic benefits with other members of an industrial cluster.

### 3.5.2. What financing model might work in Mozambique?

For the public-private partnership option preferred above, the Mozambique participants in the March 2018 visit suggested that an industrial real estate investor model, built through some form of public-private partnership, could work in Mozambique. The FNDS has created a government company, Fund Invest, which offers the sort of investment capability that could partner with other investors to build the park facilities and lease it out to value-added processing companies.

The participants observed that compared to China, the Mozambique government has limited financial resources. It would therefore be essential to leverage resources from commercial banks and/or funds from international organisations such as the International Monetary Fund or World Bank – perhaps through the provision of concessional loans or guarantee funds. The presence of the Forest Investment Programme in Mozambique offers a potential vehicle that could be explored to take these ideas further. Together with such agencies, FNDS could negotiate lower interest rates for the companies investing in such a park and eliminate the collateral requirements for commercial bank loans for those involved.

In the initial stages of park development, participants thought that the Mozambique government could also partner with the Chinese government and private sector actors who have existing processing capacity in China. This might take the form of a substantial foreign direct investment by a lead Chinese company into Mozambique – perhaps supported by investment incentives and support from the Chinese government. With the recent signing in June of the memorandum of understanding between the governments of China and Mozambique on forests, there are explicit agreements to work together to encourage investment into value-added processing within Mozambique. As a result, the partnership between China and Mozambique could and should promote technology transfer and help to establish direct links with the Chinese market.

### 3.6. Business practices, tenancy and management arrangements

The forest-wise park should only allow companies to access the park processing facilities if the companies can demonstrate that they have complied with all legal requirements, as laid out in Section 3.3 above. For example, any processing companies sourcing timber either from concession areas they own or from third parties should have concessions management plans approved and implemented; companies should be registered with the finance government department and the Social Security National Institute; and companies should maintain good community

relations, promote socioeconomic development and ensure the allocation of any rights to community lands or forests.

## 4. Challenges and opportunities in implementing forest-wise parks in Mozambique

### 4.1. Challenges

Participants in the March 2018 visit identified the main challenges that would face the development of forest-wise parks in Mozambique, outlined below.

#### **Unsustainable management of raw materials**

For the last 10–20 years, Mozambique’s natural forest resources have been overexploited by the timber industry (CEAGRE and Winrock International, 2016). The Mozambican government have just finalised the third national forestry inventory (Magalhães, in press) in order to take stock of the remaining forests in the country.

One alarming fact from this new inventory is that the new annual allowable cut – the amount of timber from commercial species that can be extracted without exceeding the annual regrowth of those species – has reduced by about 60 per cent since the previous inventory realized by Marzoli (2007). This represents severe overlogging and degradation of primary forest; the main commercial tree species are now only found in remote and inaccessible areas. Mozambican natural forest mainly consists of trees of the miombo genus, which is relatively slow growing; the main native tree species have a growth increment of only one cubic metre per hectare per year.

Given this reality, the main barrier to establishing any forest-wise park would be to guarantee a sustainable supply of raw material to processing businesses. Sustainable forest management is becoming an absolute priority for Mozambique in order to allow for any future value-added processing industry. In addition, the park’s processing capacity and main products need to be designed in line with the annual allowable cut for different timber species.

#### **Inadequate political will and unstable legislation**

Since 1995, Mozambique has undergone a series of rapid developments in its forest policy, laws and regulations. Despite initial stability in the early 2000s, and the intention written in law that forests in Mozambique would be primarily governed by a sustainable long-term concession regime, there was a rapid increase in illegal logging and overexploitation. This primarily took place through a rapid expansion in the numbers of annual simple licences. These licences stipulated low harvesting volumes and limited management and processing requirements for Mozambican operators; however, the combined effect of more than a thousand of these operators has been the extraction of timber in a largely uncontrolled and unsustainable manner. This in turn has led to several major attempts to reform elements of the law, including changes to the simple licence regime – but ultimately culminated in a complete log export ban and a

moratorium on new concessions (Menezes and Serra, 2017). The uncertainty that such legislative changes have on the timber industry are substantial and strongly discourage investment. Ensuring that the government operates in a more measured and stable way in the future will be critical to the success of any forest-wise park.

### **Unreliable power supply**

The major constraint facing investors in the country is poor infrastructure in general. This is particularly true of the unreliable power supply, which makes back-up generators necessary and significantly increases production costs. Although the Mozambique government and its partners can make dedicated investments in a forest-wise park to ensure a reliable power supply, the cost of such investments could be prohibitive.

## **4.2. Opportunities and ways forward**

The Mozambique government is currently reviewing its forest resources policy and legal framework, tenure status and use and management, in order to ensure sustainable management and legality in the forest sector. Government representatives gave an overview of the progress that had been made during the 4th International event of the CAFGP (Mayers et al., 2017).

As part of this effort, on 29 March 2018 the government decided by ministerial order that the country will only export processed wood. Furthermore, the government has restricted wood exports to exporters who have a forest concession and forestry processing capacity. The development of a forest-wise park is in line with this new ministerial order and a practical step towards encouraging more value-added processing in the forest sector.

In the March 2018 visit, MITADER staff committed to lead the promotion of forest-wise parks in collaboration with the Mozambique Association of Timber Operators. They proposed further field studies to identify the location and assess the financial feasibility and social/environmental impacts of a forest-wise park.

The March visit to China also identified a wealth of collaboration opportunities for Mozambique with the Chinese government and companies, including training of skilled labour, exchanges on value-added technologies and sustainable forest management policies and practices. In June 2018, Mozambique’s MITADER and China’s National Forestry and Grassland Administration signed an MoU of co-operation, providing a strong foundation for further co-operation between two countries in the forest sector – including co-operation for developing forest-wise parks in Mozambique.

## References

- CEAGRE and Winrock International (2016) Estudo sobre causas directas e indirectas do desmatamento e degradação florestal em Moçambique: relatório final (Study on direct and indirect causes of deforestation and forest degradation in Mozambique: final report). CEAGRE, Maputo.
- CEPAGRI (2010) Strengthening economic evaluation and data for large-scale investments in Mozambique. Presentation given at the Annual Bank Conference on Land Policy and Administration, April 26-27, 2010, Washington, D.C.
- Deloitte and Touche (2017) Investment opportunities in Mozambique: manufacturing edition.  
[https://www2.deloitte.com/content/dam/Deloitte/za/Documents/africa/za\\_Monitor\\_Deloitte\\_FSD\\_Manufacturing\\_Publication\\_ENG\\_v2.pdf](https://www2.deloitte.com/content/dam/Deloitte/za/Documents/africa/za_Monitor_Deloitte_FSD_Manufacturing_Publication_ENG_v2.pdf)
- DINAF (2017). Relatório estatístico anual 2017. MITADER, Maputo.
- DINAF (2016). Relatório estatístico anual 2016. MITADER, Maputo.
- DINAF (2015). Relatório estatístico anual 2015 (Annual Statistical Report 2015). MITADER, Maputo.
- DNFFB (2005). Relatório estatístico anual 2005 (Annual Statistical Report 2005). MINAG, Maputo.
- DNFFB (2004). Relatório estatístico anual 2004 (Annual Statistical Report 2004). MINAG, Maputo.
- DNFFB (2003). Relatório estatístico anual 2003 (Annual Statistical Report 2003). MADER, Maputo.
- DNFFB (2002). Relatório estatístico anual 2002 (Annual Statistical Report 2002). MADER, Maputo.
- DNTF (2015) Relatório de balanço anual de actividades e PES: 2014 (Annual review of activities and PES: 2014). MITADER, Maputo,.
- DNTF (2014). Relatório estatístico anual 2014 (Annual Statistical Report 2014). MINAG, Maputo.
- DNTF (2013). Relatório estatístico anual 2013 (Annual Statistical Report 2013). MINAG, Maputo.
- DNTF (2012). Relatório estatístico anual 2012 (Annual Statistical Report 2012). MINAG, Maputo.
- DNTF (2011). Relatório estatístico anual 2011 (Annual Statistical Report 2011). MINAG, Maputo.
- DNTF (2010). Relatório estatístico anual 2010 (Annual Statistical Report 2010). MINAG, Maputo.
- DNTF (2009). Relatório estatístico anual 2009 (Annual Statistical Report 2009). MINAG, Maputo.
- DNTF (2008). Relatório estatístico anual 2008 (Annual Statistical Report 2008). MINAG, Maputo.



- DNTF (2007). Relatório estatístico anual 2007 (Annual Statistical Report 2007). MINAG, Maputo.
- DNTF (2006). Relatório estatístico anual 2006 (Annual Statistical Report 2006). MINAG, Maputo.
- EIA (2014) First class crisis: China's criminal and unsustainable intervention in Mozambique. <https://eia-international.org/report/first-class-crisis-chinas-criminal-and-unsustainable-intervention-in-mozambiques-miombo-forests>
- EIA (2013) First class connections: log smuggling, illegal logging, and corruption in Mozambique. <https://eia-international.org/report/first-class-connections>
- Ekman, S, Huang, W and Langa, E (2013) Chinese trade and investment in the Mozambican timber industry: a case study from Cabo Delgado Province. Working Paper 122. CIFOR, Bogor, Indonesia. <https://www.cifor.org/library/4323/chinese-trade-and-investment-in-the-mozambican-timber-industry-a-case-study-from-cabo-delgado-province/>
- FAEF (2013) Assessment of harvested volume and illegal logging in Mozambican natural forest. Faculty of Agronomy and Forestry Engineering, Eduardo Mondlane University, Maputo.
- German, L A and Wertz-Kanounnikoff, S (2012) Sino-Mozambican relations and their implications for forests: a preliminary assessment for the case of Mozambique. Working Paper 93. CIFOR, Bogor. <https://tinyurl.com/y925mr73>
- Government of Mozambique (2013) Agenda 2025: Visão e estratégias da Nação (Agenda 2025: national vision and strategies). Maputo.
- Horta, L (20 May 2011) The dragon and the mamba: China's growing presence in Mozambique. <https://jamestown.org/program/the-dragon-and-the-mamba-chinas-growing-presence-in-mozambique/>
- Huang, W and Sun, X (2013) Tropical hardwood flows in China: case studies of rosewood and okoumé. Forest Trends, Washington DC. <https://www.forest-trends.org/publications/tropical-hardwood-flows-in-china>
- INE (1999) Indicadores socio-demográficos da Província de Manica 1997. II recenseamento geral da população e habitação. Censo 1997 (Socio-demographic indicators for Manica Province 1997: general population and housing census 1997). National Institute of Statistics, Maputo.
- KPMG (2010) Top 100 Companies in Mozambique. XII Edition.
- Langa, S J (2017) Contribuição do sector florestal para a economia nacional. Tese de Mestrado (The forestry sector's contribution to the national economy. Masters' thesis). FAEF, Eduardo Mondlane University, Maputo.
- Mabucanhane, N L (2015) A nova era de co-operação Moçambique – China: debates, dilemas, realidades e perspectivas de políticas institucionais (A new era of Mozambique-China cooperation: debates, dilemmas, realities and perspectives on institutional policies). *Espaço e Economia* 4(7) 1–27.
- Mackenzie, C (2006) Forest governance in Zambezia, Mozambique: Chinese take-away! FONGZA, Quelimane, Maputo.
- Mackenzie, C and Ribeiro, D (2009) Tristezas tropicais: More sad stories from the forests of Zambezia. Amigos da Floresta and Justiça Ambiental, Maputo.

- Macqueen, D (ed.) (2018) China in Mozambique's forests: a review of issues and progress for livelihoods and sustainability. IIED, London. <http://pubs.iied.org/13597IIED>
- Macqueen, D and Falcão, M (2017) Boosting governance in Mozambique's forests: options for more sustainable forestry among Chinese timber traders and Mozambican partners. IIED, London. <http://pubs.iied.org/17601IIED/>
- Magalhães, T (in press) Mozambique National Inventory. Eduardo Mondlane University, Maputo.
- Marzoli, A. (2007) Inventário florestal nacional (National Forestry Inventory). DNTF, Maputo, Moçambique.
- Mayers, J, Macqueen, D, Weng, X and Tran-Thanh, K (2017) Invest in forest-wise people and business! A report from the 4th international learning event of the China-Africa Forest Governance Platform. IIED, London. <http://pubs.iied.org/13593IIED/>
- Menezes, S and Serra, C (2017) Análise do impacto da reforma legal no sector florestal (Analysis of the impact of legal reform on the forestry sector). IIED, London. <http://pubs.iied.org/13590PIIED>
- MITADER (2018) Mozambique's forest reference emission level for reducing emissions from deforestation in natural forests.
- Muianga, M and Norfolk, S (2017) Investimento Chinês no sector florestal Moçambicano (Chinese investment in the Mozambique forestry sector). IIED and Terra Firma, London. <http://pubs.iied.org/13592PIIED/>
- Núñez, R and Ribeiro, V (2006) Mozambique: paving the way for industrial tree plantations. *World Rainforest Movement Bulletin* 107. <https://tinyurl.com/yd92jq8u>
- Ogle, A and Nhantumbo, I (2006) Improving the competitiveness of the timber and wood sector in Mozambique. USAID, Maputo.
- Porter, M E (1998) Clusters and the new economics of competition. *Harvard Business Review* 76 (November-December) 77-90. <https://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>
- Ribeiro, D and Nhabanga E (2009) Levantamento preliminar da problemática das florestas de Cabo Delgado (Preliminary survey of problems in the forests of Cabo Delgado). Justiça Ambiental, Maputo.
- Saleman, Y and Jordan, L (2014) The implementation of industrial parks: some lessons learned in India. *Policy Research Working Paper* 6799. The World Bank Financial and Private Sector Development Competitive Industries Global Practice, Washington DC. <https://tinyurl.com/y95c2n6z>
- Savcor (2005) Forest sector profitability in Mozambique. Savcor Indufor Oy and National Directorate of Forestry and Wildlife, Maputo.
- Sun, X, Ren, P and Van Epp, M (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London. <http://pubs.iied.org/17569IIED/>
- Taylor, I (2006) China and Africa: engagement and compromise. Routledge, London.

UNIDO (2017) Global assessment of eco-industrial parks in developing countries.

<https://tinyurl.com/yc7a8fq7>

Wertz-Kanounnikoff, S, Falcao, M and Putzel, L (2013) Facing China's demand for timber: an analysis of Mozambique's forest concession system with insights from Cabo Delgado Province. *International Forestry Review* 15 387-397.

<https://tinyurl.com/ycrrhvbe>

World Bank (2016) Country data for Mozambique.

<https://data.worldbank.org/country/Mozambique>

WWF (2016) WWF apoia iniciativa de avaliação de operadores florestais em Mocambique (WWF supports forest operators' assessment initiative in Mozambique). WWF, Maputo. <https://tinyurl.com/ybsncas3>

## Annex 1. Interviewees

<b>Name</b>	<b>Organisation</b>	<b>Current function</b>
Mr Momade Nemane	MITADER / FNDS	Chief Executive Officer
Mr Claudio Afonso	MITADER / DINAF	Head of Forestry Department
Mr Imede Falume	MITADER / DINAF	Deputy National Director
Mr Jaime Nhamirre	Forestry Engineering Department, Eduardo Mondlane University	Lecturer
Adolfo Bila		Professor
Mr Almeida Siteo		Professor
Mr Aldo Achaca		Owner of the company
Mr Abdul Majid	Wood Industry of Mozambique	Owner of the company (concessionaire)
Mr Patrick Green	Argento Mozambique	Director
Mr António Serra	WWF	Project Co-ordinator
Mr Muino Taquidir	World Bank	Consultant

Note: DINAF – National Directorate of Agriculture and Forests; FNDS – National Development Fund; MITADER – Ministry for Lands, Agriculture and Rural Development; WWF – World Wide Fund for Nature.

## Annex 2. Participants in March 2018 visit to China

Name	Current function	Organisation	Organisation type
Mr Imede Chafim Falume	Deputy National Director of Forest	DINAF / MITADER	Government
Mr Paulo Miguel Feniase	Chief of Industry	DINAF / MITADER	Government
Mr Eduardo Samuel	Managing Director	AQUA / MITADER	Government
Mr José Hélder Soares	Technician	FNDS / MITADER	Government
Mr Paulo Aliang	Chief Operating Officer	Invest Fund / MITADER	Government
Mr Virgílio António dos Santos Fumo	Technician	Ministry of Industry and Commerce	Government
Dr. Mário Paulo Pereira da Silva Falcão	Consultant	Eduardo Mondlane University	Government
Mr Aldo Clérico Achaca	Businessman	AMOMA	Private
Mr Edson Rick Va-Lem Achaca	Businessman	AMOMA	Private
Mr Narciso Gabriel	Businessman	AMOMA	Private
Mr Augusto Mendes	Business Development Co-ordinator	FNDS Invest	Government

Note: AQUA – Agency for Environmental Quality Control; AMOMA – Mozambique Association of Timber Operators; DINAF – National Directorate of Agriculture and Forests; FNDS – National Development Fund; MITADER – Ministry for Land, Agriculture, Environment and Rural Development.





After decades of growth in China-Mozambique economic relations, China is now the destination for approximately 93 per cent of all Mozambique's timber exports – but this has coincided with an alarming loss of forest cover, raising concerns over the impact of this trade on Mozambique's forest and rural development. In 2018, under the China-Africa Forest Governance project, the Chinese Academy of Forestry and IIED co-organised a visit by Mozambican stakeholders to two sustainable forest product processing parks, also referred to as 'forest-wise' parks, in Nankang and Zhenjiang, China. This report summarises preparatory desk research conducted in preparation for the visit and captures some reflections from Mozambique stakeholders, including those who participated in the visit.



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## Project Report

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### Theme

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